

REMARKS

Claims 1-18 are currently pending, claims 19-26 have been withdrawn in response to a restriction requirement. Applicants respectfully request reconsideration of the captioned application in view of the following remarks.

Claim Rejections – 35 USC § 103

Sections 1-2 of the office action rejected claims 1-18 under 35 USC 103(a) as allegedly unpatentable over U.S. Patent No. 5,633,063 to Lause et al (“Lause”) in view of U.S. Patent No. 6,069,586 to Karlsson et al (“Karlsson”). Applicants respectfully traverse these rejections.

As noted in MPEP 2143.03, for a rejection under 35 USC 103, “All claim limitations must be taught or suggested.” Claim 1 includes “a low-dielectric constant expanded poly-vinyl-chloride foam sheet...” and claim 10 includes “an expanded poly-vinyl-chloride foam having a dielectric constant equal to or less than two.” The written description of the present application notes that in some embodiments, the dielectric constant is below about 2. See, specification at p. 6.

The office action admits that Lause fails to disclose “PVC having a dielectric constant expanded. [sic]” Office action at p. 2. As understood by Applicant, this admission refers to the Lause reference failing to disclose a low-dielectric constant expanded PVC foam sheet. The office action goes on to state, “Karlsson discloses the PVC having a dielectric constant expanded,” citing col. 1, lines 63-67 of Karlsson. The cited portion of Karlsson reads as follows:

“The parasitic elements may be made of an electrically conductive material, e.g. a metal or a carbon fibre material, or a dielectric material having a *dielectric constant greater than 2*, preferably between 2 and 6, e.g. polypropen or PVC.”

(emphasis added). Thus, Karlsson actually teaches away from the recitations of claims 1 and 10, clearly failing to disclose or suggest a low dielectric constant PVC foam sheet.

Moreover, there must be a suggestion or motivation to combine teachings of the prior art. More specifically, MPEP 2143.01 notes,

“Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.”

Id., citing *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000).

Still further, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)

Regarding combining the teachings of Lause and Karlsson, the office action states,

It would have been obvious ... to employ a the PVC having a dielectric constant expanded [sic] such as that suggested by Karlsson in the antenna module of Lause in order to measure an electromagnetic signals [sic] at the material for antenna and minimize a distorting effect on the electromagnetic radiation signals.”

Office action at p. 2.

However, Lause is directed to laminated building panels for use on residential and manufactured home exteriors. In fact, neither of the terms *antenna* nor *dielectric* are used in the Lause reference. Thus, there clearly is no suggestion to use the teachings of Karlsson to modify the building panels disclosed in Lause. Any such suggestion obviously would completely change the principal of operation of the building panels of Lause.

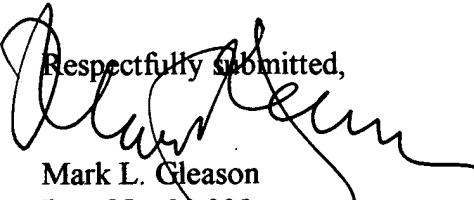
Independent claims 1 and 10, and all of the remaining claims dependent there on, are thus believed to be proper for allowance.

Allowable Subject Matter

Section 3 noted that claims 7 and 9 contained allowable subject matter but were objected to as depending from a rejected base claim. The Examiner's acknowledgment of the allowable subject matter is appreciated. However, as noted above, claim 1 from which claims 7 and 9 both ultimately depend is believed to be in condition for allowance. For at least this reason, claims 7 and 9 are also allowable, thus overcoming the objection thereto.

Conclusion

As evidenced by the foregoing remarks, Applicants have made a genuine effort to address each concern raised in the office action. All of the pending claims are believed to be in condition for allowance. The Examiner is invited to contact the undersigned attorney with any concerns or questions regarding the present application.


Respectfully submitted,
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